



STATE OF MARYLAND

DMMH

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August 26, 2008

Public Health & Emergency Preparedness Bulletin: # 2008:34 **Reporting for the week ending 08/23/08 (MMWR Week #34)**

CURRENT HOMELAND SECURITY THREAT LEVELS

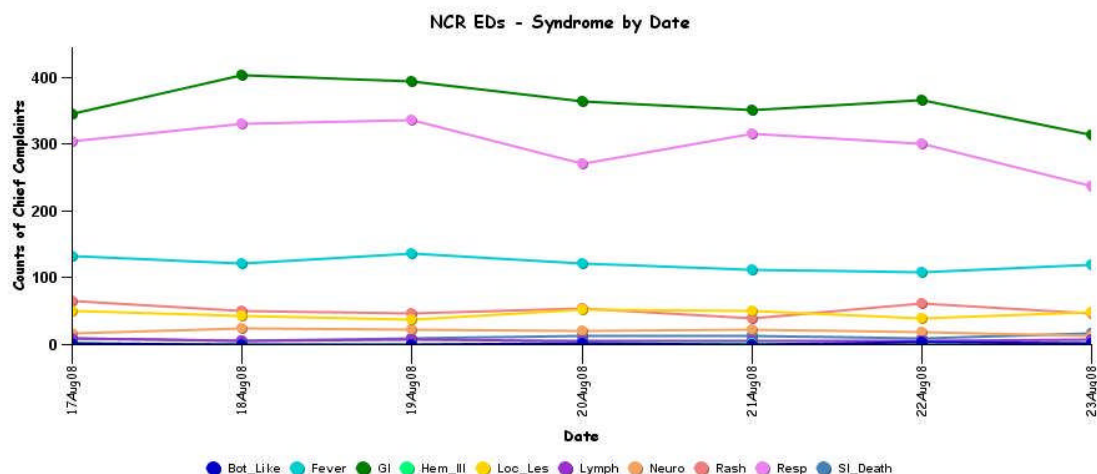
National: Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)
Maryland: Yellow (ELEVATED)

SYNDROMIC SURVEILLANCE REPORTS

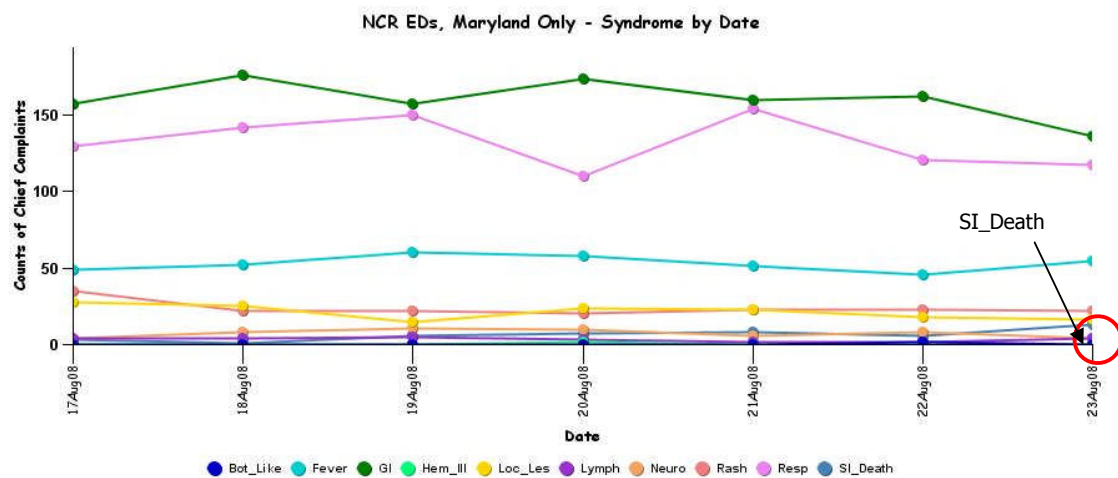
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts only. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

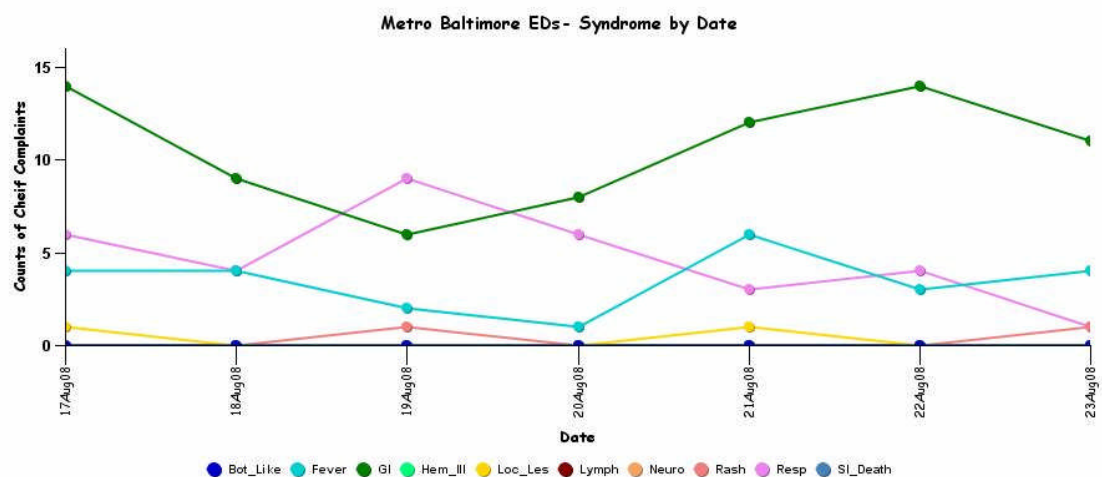
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.



* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system



* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system

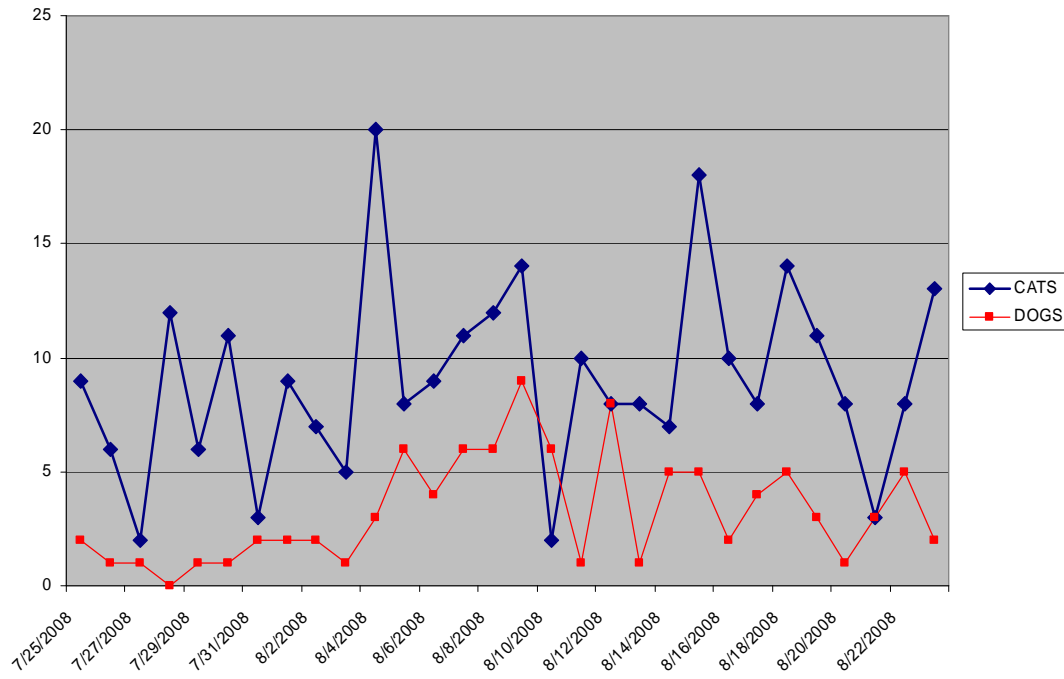


****NOTE: Not all data for Metro Baltimore hospitals was available for MMWR Week 34, due to technical issues that are being addressed****

* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.

Dead Animal Pick-Up Calls to 311

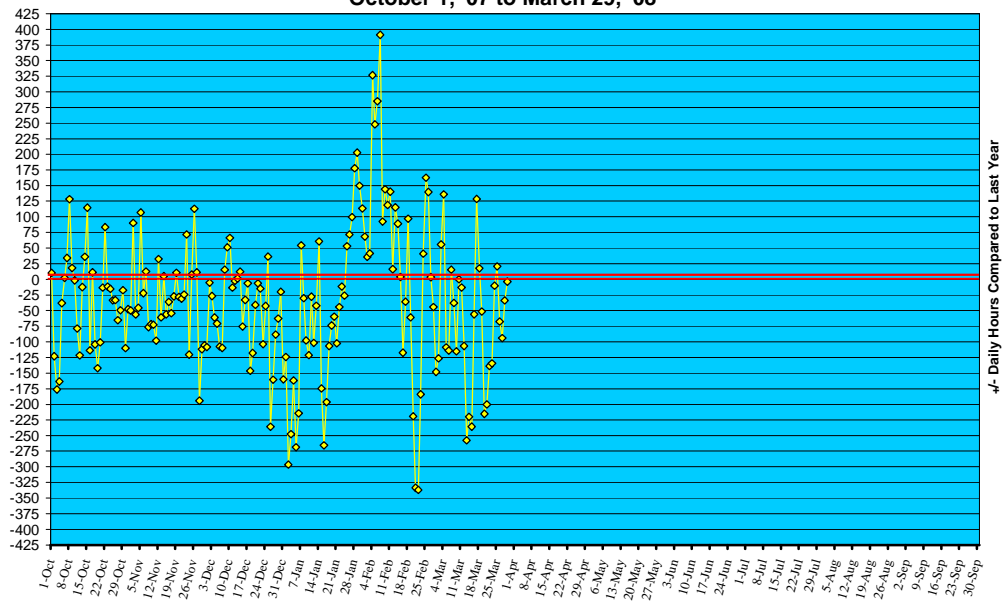


REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/06.

*Note: No new data available at this time.

**Statewide Yellow Alert Comparison
Daily Historical Deviations
October 1, '07 to March 29, '08**



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in July 2008 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	<u>Aseptic</u>	<u>Meningococcal</u>
New cases (Aug 17 – 23, 2008):	18	0
Prior week (Aug 10 – 16, 2008):	6	0
Week#34, 2007 (Aug 19 - 25, 2007):	31	0

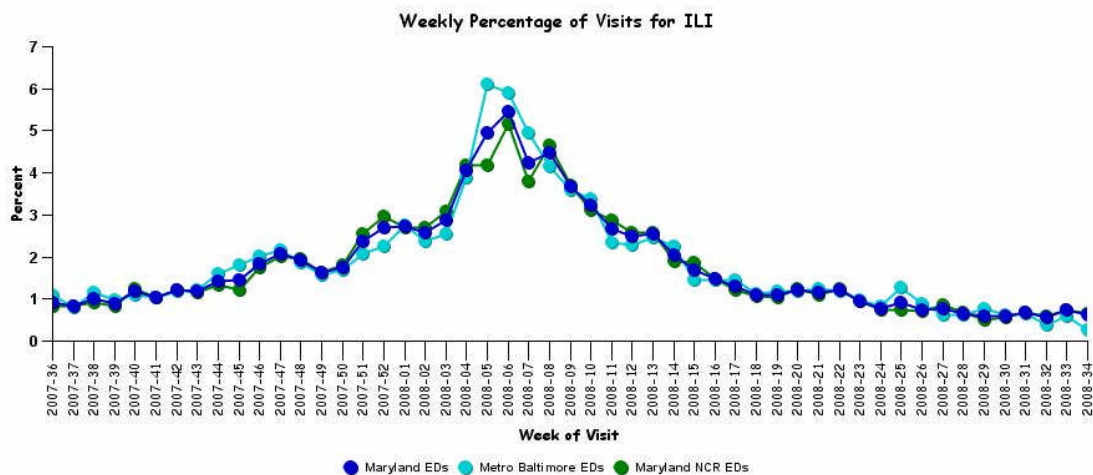
0 outbreaks were reported to DHMH during MMWR Week 34 (August 17-August 23, 2008).

MARYLAND SEASONAL FLU STATUS:

Seasonal Influenza reporting occurs October through May.

SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS:

Graph shows the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. This graph does not represent confirmed influenza.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO Pandemic Influenza Phase: Phase 3/4: No or very little human-to-human transmission/Small clusters with limited human-to-human transmission, suggesting that the virus is not well adapted to humans

US Pandemic Influenza Stage: Stage 0/1: New domestic animal outbreak in at-risk country/Suspected human outbreak overseas

*More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at:

<http://bioterrorism.dhmd.state.md.us/flu.htm>

WHO update: As of June 19, 2008, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 385, of which 243 have been fatal. Thus, the case fatality rate for human H5N1 is about 63%.

AVIAN INFLUENZA (H7N3), ANIMAL (RHODE ISLAND): A strain of bird flu has been detected in 4 swans found in the Seekonk River. The cases were discovered as part of routine surveillance by the Rhode Island Department of Environmental Management (DEM). DEM says the strain of avian flu detected in Rhode Island is not the same strain that has infected people in Asia and Europe since 2003, so it does not pose a significant health risk to humans. However, the agency says the virus can be transmitted to wild birds and domestic poultry flocks. It is urging all poultry owners to employ standard biosecurity and sanitation practices. In particular, they should prevent flocks from having any contact with wild birds.

NATIONAL DISEASE REPORTS:

HANTAVIRUS (WASHINGTON): An Ellensburg police officer died Friday, 15 Aug 2008, from what is believed to have been a deadly hantavirus [infection], a rare illness contracted from inhaling airborne urine and feces of mice. The policeman, [age] 34, died at Yakima Valley Memorial Hospital at approximately 2 pm, barely 48 hours after suffering symptoms. Victims of a hantavirus [infection may] suffer flu-like symptoms and die of suffocation. Police said it's unknown at this time when or exactly where the officer contracted the rare, but often fatal disease. Public health officials are said to be investigating. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, BOVINE (SOUTH DAKOTA): A livestock disease that has been known to veterinary medicine for generations and regularly appears in South Dakota has been detected in 3 cattle herds in Douglas and Hutchinson counties. The Animal Disease Research and Diagnostic Laboratory at South Dakota State University is closely tracking the outbreak of anthrax in those herds. "It is one of the oldest diseases known to man," says South Dakota State Veterinarian Sam Holland. "We are in what is known as an anthrax belt, from Canada to Texas. Historically, the soil in this part of the country is known to be contaminated with spores of the bacteria. "Holland is quick to point out the cattle disease is not the same form of weapons-grade anthrax that was mailed to the office of former Sen. Tom Daschle and several others in 2001. Holland says the anthrax spores that afflicted the South Dakota cattle are large and difficult to inhale. "The human health concern is handling carcasses without protective clothing such as long-sleeve shirts," he says. Human exposure to anthrax spores in this manner typically results in "rather nasty skin infections" but usually is not fatal, says Russ Daly, extension veterinarian and SDSU assistant professor. Daly says the positive tests from the 3 South Dakota herds indicate a relatively small outbreak. He describes the mechanism of infection as cattle ingesting anthrax spores while grazing in pastures containing the bacteria. A good veterinary anthrax vaccine exists, and livestock producers are urged to annually vaccinate their herds before the grazing season, Holland says. "Yes, but you don't know when the conditions are right for anthrax to appear, so that vaccine is not used routinely," says John Gay, a Washington State University veterinary professor and researcher. Once an outbreak is detected, Holland says, his staff contacts nearby livestock owners and urges them to vaccinate their animals. Within a week to 10 days after vaccination, effective immunity is achieved. Within herds where anthrax is confirmed, Holland says, the entire herd should be vaccinated, simultaneously treated with antibiotics and be given a booster vaccine within 7 to 10 days. Anthrax can be effectively treated with antibiotics, Holland says. However, "the incubation period is short. Once an animal starts exhibiting signs of the disease, they are usually dead within hours. That's why treating sick animals is rarely done," he says. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

BOTULISM, AVIAN (GREAT LAKES): Diseased birds have died of Type E botulism in Mason County, marking the 1st time the disease has been seen that far south on Lake Michigan's shore. The infected birds included ring-billed gulls and double-crested cormorants found dead in Ludington State Park in July 2008. The state Department of Natural Resources said Friday, 8 Aug 2008, that the bacteria and the toxin it produces are picked up by birds eating mussels and invasive round gobies that carry the bacteria. Birds also may be sickened by scavenging carcasses of birds or fish that have died from the disease. DNR officials say anyone along Lake Michigan who comes across dead water birds should make sure pets don't come in contact with them. Precautions can be found on the Emerging Diseases Web site. (Botulism is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS:

EASTERN EQUINE ENCEPHALITIS (CANADA): A horse in North Durham, ON, has tested positive for a rare West Nile-like virus which can be contracted by humans, according to Durham Region Health Department. The department confirmed last week, 11-15 Aug 2008, that the horse had been infected with eastern equine encephalitis (EEE) earlier this month and died shortly afterward. The virus, which mainly affects horses and some bird species can be transmitted to humans via an infected mosquito, similar to West Nile virus (WNV). The signs of the 2 viruses are also similar, ranging from a mild flu-like illness to coma and death. "Although EEE is uncommon in Ontario and the risk to humans is quite low, there have also been 2 positive tests for WNV in birds reported in Durham Region this summer," said Dr. Monika Dutt, Durham Region's Acting Medical Officer of Health. "Therefore, it is important for everyone to remember to take

precautions to help reduce the risk of being bitten by mosquitoes." Although the mortality rate of EEE in humans is approximately one-third according to the U.S. Centers for Disease Control and Prevention (CDC), the Ontario Ministry of Agriculture (MOH), Food and Rural Affairs recorded only 2 cases (both in horses) in the province in 2004. The CDC's website also states that horses are 'dead-ends' for the virus, meaning that transmission from horses to humans via infected mosquitoes is extremely rare, due to the small amount of the virus found in equine bloodstreams. The disease is most prevalent in swampy areas of the continent, which provide a breeding ground for the mosquitoes that transmit the virus. According to Dr. Robert Kyle, Durham Region's Medical Officer of Health, residents of North Durham living in and around Lake Scugog are not at increased risk level, since the mosquito which transmits the disease from birds to humans (a different species of mosquito carries the virus from birds to horses) is indigenous to warmer regions, such as the southern U.S. (Viral Encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, BOVINE (FRANCE): 18 Farms have been hit by the Anthrax outbreak in Doubs. According to the Department of Veterinary Services on Thursday, 14 Aug 2008, 38 cattle have died since the beginning of the month of July 2008. A beef animal died on Wed 6 Aug 2008 of anthrax at Avoudrey (Doubs) on a farm which had not been contaminated by the disease. Then 4 beef animals were found dead at the end of last week on 2 farms already contaminated from the same source at Passonfontaine [Passonfontaine is 2.1 km south of Avoudrey. - Mod.MHJ] The contaminated farms are in 8 communes in the same sector covered by the DVS and the prefecture of Doubs. By an official demand by the prefecture from 7 Aug 2008, the vaccination of cattle and sheep has been made obligatory in 25 communes of the department of Doubs, and the opening of the game hunting season has been put back from 16 Aug to 26 Aug 2008; forestry work has been suspended and access forbidden to 6 ancient animal cemeteries that have been identified. The DSV estimate is that there will be 9000 animals (both sheep and cattle) that will need vaccination. The disease is transmittable to humans but only in exceptional cases and only in the case of extreme proximity to the animal, stressed the prefecture. "One does not know the exact origin of the contamination, but the ancient animal mass graves are certainly a possible source," said Isabell Pieson, Veterinary Surgeon of the DSV. Anthrax is an infectious disease that affects all mammals, principally herbivores. The bacteria of the disease can live in the soil several dozens of years, principally in historic animal mass graves, as rendering the carcasses was not done until the middle of the 20th century. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, BOVINE (ARGENTINA):

On 14 Aug 2008, anthrax was diagnosed by bone marrow culture of a bovine metacarpal. The dead animal belonged to an estancia [cattle ranch] located at the paraje Banderale, close to National Highway 188, in the Partido de General Villegas, Buenos Aires Province. The exposed animals included a herd of 120 steers that are grazing on a mixed pasture for a year and were not vaccinated; in addition, the area is going through a drought. The affected animal died suddenly and lost un-coagulated blood from natural openings. The veterinarian disposed of the carcass with the controlled covered technique [Tapado Controlado], decontaminating beforehand with 5 percent formaldehyde. Personnel working on the farm recalled an outbreak that occurred in the 1980's. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

CRIMEAN-CONGO HEMORRHAGIC FEVER (TURKEY): A patient with Crimean-Congo hemorrhagic fever (CCHF) from northern Tokat province succumbed to the disease at the Sivas hospital where he was being treated. According to the Anatolia news agency, a tick bit the 37-year-old farmer while he was working in a field in a village in Tokat. He went to a hospital in Tokat and hospital staff removed the tick. After being released from the hospital he fell ill and went back to the hospital. He was transferred to Sivas Cumhuriyet University Research and Training Hospital, where he died despite medical attention. Reports say the farmer, a father of 3, was buried in his village yesterday, 19 Aug 2008. Mostly infecting animals, CCHF is a viral disease transmitted by ticks. The virus can infect sheep and cattle in addition to humans and is fatal if not detected and treated early. It has been responsible for the deaths of more and more people in Turkey each year since its first recorded incidence in Turkey in 2002. (Viral hemorrhagic fever is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS, SEROTYPE AGONA (UNITED KINGDOM, IRELAND, SWEDEN, FRANCE): The salmonellosis outbreak possibly linked to a meat plant in County Kildare, Ireland, has now spread to Sweden and France, bringing to 5 the number of European Union countries affected. The latest figures for the outbreak of _Salmonella_ Agona, released last night, 18 Aug 2008, show some 132 people have now been infected. Sweden has reported its 1st 2 cases, while France has confirmed 1 person has been infected by the relatively rare strain of the bacterium. The genetic fingerprint of the microbe has been linked to a particular production line at the Dawn Farm Foods plant in Naas. Of the 132 people, some 125 have had an isolate with the same genetic fingerprint as samples taken from the meat plant. Final test results are awaited on a further 7 cases. A spokeswoman for the Health Protection Surveillance Centre said a water specimen taken from a Scottish river contained the exact same strain of _Salmonella_ Agona but it had subsequently been established that the microbe had originated in a sewage outlet and was therefore the result rather than the cause of the outbreak. Of the 132 people who have become sick as a result of the infection, some 76 cases have been identified in England with Scotland reporting 31 cases. 11 people in Ireland are now known to have been affected, with 4 of these requiring hospital treatment. Finland, France and Sweden are the other EU states where cases have been found. The European Centre for Disease Control has reported that the Finnish case arose after the person ate beef strips contained in a sandwich. As a result of the outbreak, beef strips, chicken, lamb and pork supplied to at least 8 European countries and to Kuwait have been withdrawn by Dawn Farm Foods. (Food Safety Threat is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

CHIKUNGUNYA (SINGAPORE): Singapore on Saturday, 16 Aug 2008, reported 9 new cases of mosquito-borne chikungunya fever, bringing to 117 the total number of such cases this year. According to Channel News Asia reports on Saturday, 16 Aug 2008, night, of these cases, 54 were imported and had a history of travel to countries such as Malaysia, Indonesia and Sri Lanka. The 9 new cases of chikungunya fever were locally-transmitted ones, as none of them traveled overseas recently. Singapore's Health Minister Khaw Boon Wan was quoted as saying that the country has been fighting mosquitoes for several decades now and that he knew these were very formidable enemies. "They'll try to survive, and I think there's no other way except just make sure our environmental hygiene is of very high standards," the minister said. (Emerging Infectious Disease is listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST:

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://bioterrorism.dhmm.state.md.us/>

Investigation of Outbreak of Infections Caused by *Salmonella* Saintpaul

Updated information on the recent outbreak of human *Salmonella* infections associated with consumption of raw tomatoes. (<http://www.cdc.gov/salmonella/saintpaul/>)

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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